

On Page 11, between lines 13 and 14, please insert:

--DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS--

A Marked-Up Version of Pages 1, 4, 5, 6 and 11 is enclosed.

IN THE CLAIMS:

Please cancel claims 1 to 17 without prejudice, and please add new claims 18 to 34 as follows:

18. Process for the separation and purification of an aqueous mixture comprising main components acetic acid, formic acid and high boilers by extraction with a solvent in a circulation process, which comprises

feeding a raffinate stream containing a major part of water to a solvent stripping column (11) for removal of the water;

conveying an extract stream to a solvent distillation column (8) from which, in a first step, a mixture (A) comprising water and solvent is separated off via a top of column (8) and a mixture (B) comprising acetic acid, formic acid and high boilers is separated off via a bottom of column (8);

separating the formic acid off from the mixture (B) in column (29) and subsequently fractionating a remaining mixture (B) into pure acetic acid and high boilers in an acetic acid distillation column (5), and

conveying the mixture (A) to a phase separator (25) from which an aqueous phase containing residual solvent is recirculated to the solvent stripping column (11) and an organic phase is recirculated to an extractor (7).

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19. Process according to Claim 18, comprising operating the solvent distillation column (8) under atmospheric pressure.
20. Process according to Claim 18, comprising operating the solvent distillation column (8) under a superatmospheric pressure of from  $1*10^5$  to  $50*10^5$  Pa.
21. Process according to Claim 18, comprising operating the extractor (7) in at least one stage.
22. Process according to Claim 18,

wherein a solvent circuit in the extractor (7) runs countercurrent to crude acid.

23. Process according to Claim 18,

wherein the solvent used is selected from the group consisting of a saturated hydrocarbon having from 4 to 8 carbon atoms, an unsaturated hydrocarbon having from 4 to 8 carbon atoms, a cyclic hydrocarbon having from 4 to 8 carbon atoms, and mixtures thereof.

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24. Process according to Claim 18,

wherein the solvent used is at least one compound selected from the group consisting of ethers, esters, ketones, hydrocarbons and alcohols.

25. Process according to Claim 18,

wherein the solvent used is at least one compound selected from the group consisting of methyl tert-butyl ether, diisopropyl ether, di-n-propyl ether, ethyl butyl ether, ethyl acetate and isopropyl acetate.

26. Process according to Claim 18, comprising

carrying out the extraction at a temperature of from 0 to 60°C and at a pressure of from  $1*10^5$  to  $20*10^5$  Pa.

27. Process according to Claim 18,

wherein the mixing ratio of solvent to crude acid (volume/volume) is from 0.5 to 20.

28. Process according to Claim 18, comprising

operating intermediate distillation column (29) at a pressure of from  $1*10^5$  Pa to  $50*10^5$  Pa.

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29. Process according to Claim 18, comprising

operating solvent distillation column (8) in such a way that small amounts of water remain in a product stream.

30. Process according to Claim 18,

wherein intermediate distillation column (29) has a side offtake at which a substream is taken off.

31. Process according to Claim 18,

wherein the mixture (B) comprising the components acetic acid, formic acid, high boilers and residual water is

fractionated in an intermediate distillation column (29) into a bottom product which is free of formic acid and comprises acetic acid and high boilers and a mixed top product comprising formic acid, water and small amounts of acetic acid;

where a bottom product from column (29) is fractionated in a downstream acetic acid distillation column (5) into pure acetic acid and high boilers and a top product from column (29) is fed to a pure formic acid distillation column (33) where it is fractionated into pure formic acid as top product and a mixed bottom product comprising acetic acid, formic acid and water which is recirculated to an extract stream to the solvent distillation column (8).

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32. Process according to Claim 31, comprising  
operating the pure formic acid distillation column (33)  
at a pressure which is from  $0.1 \times 10^5$  to  $25 \times 10^5$  Pa lower than a  
pressure in the intermediate distillation column (29).

33. Process according to Claim 18,  
wherein heat of condensation in the distillation column  
(29) is used selected from the group consisting of heating the  
formic acid distillation column (33), heating the solvent